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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,591	11/18/2005	David Alun James	142.021US01	1465
34206 7590 04/16/2008 FOGG & POWERS LLC 10 SOUTH FIFTH STREET SUITE 1000 MINNEAPOLIS, MN 55402				
EXAMINER				
WHITTINGTON, KENNETH				
ART UNIT		PAPER NUMBER		
2862				
NOTIFICATION DATE		DELIVERY MODE		
04/16/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@fogglaw.com

Office Action Summary

Application No.

10/531,591

Applicant(s)

JAMES ET AL.

Examiner

KENNETH J. WHITTINGTON

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-18, 27, 28 and 30 is/are rejected.
- 7) ☒ Claim(s) 11-13, 19-26 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 4/15/05:12/11/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim 1-30 are objected to because of the following informalities: they refer to "excitation signals" and "excitation signal" interchangeably, rendering one or the other to have unclear antecedent basis. Use of either throughout the claims would overcome the objection. Appropriate corrections are required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10, 14-18, 27 and 28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 7298137 ('137) in view of Dames et al. (US5814091), hereinafter Dames. Claim 5 (which includes the features of claim 1) discloses or teaches all the features of claim 1 of the present application, including an analyzer to receive the coupled signals from the excitation windings, except for an explicit reference to any sense coil. However, it is well known in the art for such magnetic coupling sensors to have sense coils as taught in Dames (See Dames FIGS. 2-4, note sense windings 15). It would have been obvious to use a sense winding in the resonant position sensor claimed in the '137 patent as taught by Dames. One having ordinary skill in the art would do so because such apparatus such as that recited in '137 required a sense coil to measure the coupling and accordingly a phase shift for position measurement.

Regarding claims 2-10 and 14-16 of the present application, they are either explicitly disclosed or simply properties of the apparatus of claim 5 (including claim 1) of '137.

Regarding claims 17, 18, 27 and 28, it is noted that since the noted combination of '137 in view of Dames teaches the structural features of these claims, it would have been obvious

at the time the invention was made to optimize the frequency of the second and/or third signal because optimizing a result oriented variable is simply routine skill in the art. See MPEP 2144.05(II).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 30 is rejected under 35 U.S.C. 102(e) as being anticipated by Ely et al. (US6980134), hereinafter Ely. Regarding this claim, Ely discloses a method of sensing a parameter, the method comprising:

applying an excitation signal to an excitation winding (See FIGS. 2-5, winding 25 and generator 51);

processing a signal generated in a sensor winding which is electromagnetically coupled to the excitation winding, in response to the application of the excitation signal to the

excitation winding to determine a value representative of the parameter being measured (See FIGS. 2-5, note receive windings 21 and 23);

the processing comprising generating a second signal at a frequency different from that of the excitation signal, mixing the second signal with the signal received from the sensor winding to generate a third signal having a frequency component equal to the difference between the frequency of the excitation signal and that of the second signal, and determining the said value of the parameter from the phase of the third signal (See FIGS. 2-5 and disclosure related thereto, note signals 63, 65 and 67, have slightly different freq. from excitation signal and are mixed with receive signals 21 and 23 in mixers 57, 59 and 61, to create third signals).

Allowable Subject Matter

Claims 1-29 would be allowable over the prior art if a proper Terminal Disclaimer were filed to overcome the above noted Double Patenting rejection.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not show or teach the use of an excitation winding comprising a plurality of

coils having different spatial functions as recited in the claims and in combination with the other features of the claims.

Claims 11-13, 19-26 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. This is an alternate option to filing the terminal disclaimer noted above.

The following is a statement of reasons for the indication of allowable subject matter: these claims are allowable for the features recited therein in combination with the features of the claims from which they depend.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENNETH J. WHITTINGTON whose telephone number is (571)272-2264. The examiner can normally be reached on Monday-Friday, 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth J Whittington/
Primary Examiner, Art Unit 2862